# Certificate of Analysis

## Thaw and Culture Details

| | | |
|---|---|---|
| Cell Line Name | **PENN114i-127-2** | |
| WiCell Lot Number | **DB34717** | |
| Provider/Client | University of Pennsylvania – Dr. Daniel Rader | |
| Banked By | Penn Institute for Regenerative Medicine iPS Core Facility | |
| Thaw and Culture Recommendations | WiCell recommends thawing 1 vial into 1 well of a 6 well plate using Stem Cell Culture Medium and MEF. WiCell recommends thawing using ROCK Inhibitor for best results. | |
| Protocol | WiCell Feeder Based (MEF) Pluripotent Stem Cell Protocol | |
| Culture Platform Prior to Freeze | Medium: Stem Cell Culture Medium | Matrix: MEF |
| Passage Number | p13<br>Cells were cultured for 12 passages prior to freeze and post colony selection. Plated cells at thaw should be labeled passage 13. | |
| Date Vialed | 02-April-2015 | |
| Vial Label | iPS-127-1188<br>Sev2<br>P13 04/02/15 JS | |
| Biosafety and Use Information | Appropriate biosafety precautions should be followed when working with these cells. The end user is responsible for ensuring that the cells are handled and stored in an appropriate manner. WiCell is not responsible for damages or injuries that may result from the use of these cells.<br>Cells distributed by WiCell are intended for research purposes only and are not intended for use in humans. | |

# Certificate of Analysis

## Results

| Test Description | Test Provider | Test Method | Test Specification | Result |
|---|---|---|---|---|
| Karyotype | WiCell | G-T-L Banding performed on 20 metaphase cells | Expected karyotype | See Report |
| | ***Results:*** 46,XX<br>***Interpretation:*** This is a normal karyotype; no clonal abnormalities were detected at the stated band level of resolution. | | | |
| Post-Thaw Viable Cell Recovery | WiCell | Thaw using specified Thaw & Culture Recommendations | Recoverable attachment after passage | Pass |
| Identity by STR | WiCell | PowerPlex 16 HS System by Promega™ | Defines STR profile of deposited cell line | See Report |
| Mycoplasma | WiCell | PCR | Amplification of mycoplasma specific DNA detected with negative result | Pass |
| Sterility | Steris | Native Product Direct Transfer using FTM and TSB (ST/07) | Negative for growth following 14 days of culture | Pass |

## Testing Reported by Provider

The Provider stated that some or all of the additional analyses listed below may have been performed for this cell line. For more information, publication and dbGaP links, where available, are provided on the cell line specific web page on the WiCell website.

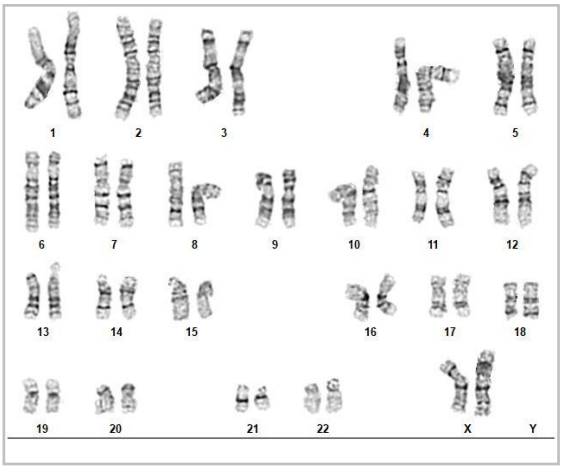
- SNP microarray
- Flow Cytometry (Tra1-60 and SSEA-4)
- Differentiation into hepatocytes
- Infinium® Expanded Multi-Ethnic Genotyping Array (MEGA$^{EX}$)

| Approval Date | WiCell Quality Assurance Approval |
|---|---|
| 15-July-2021 | 7/15/2021<br>X JKG<br>JKG<br>WiCell Quality Assurance<br>Signed by: Gay, Jenna |

# Chromosome Analysis Report: 086766

**Date Reported:** Wednesday, June 30, 2021
**Cell Line:** PENN114i-127-2-DB34717
**Submitted Passage #:** 15
**Date of Sample:** 6/18/2021
**Specimen:** Human IPSC
**Results:** 46,XX

**Cell Line Sex:** Female
**Reason for Testing:** LOT_RELEASE
**Investigator:** WiCell Stem Cell Bank, WiCell




**Cell:** 20
**Slide:** G03
**Slide Type:** Karyotype

**Total Counted:** 20
**Total Analyzed:** 8
**Total Karyogrammed:** 4
**Band Resolution:** 425 - 475

**Interpretation:**
**This is a normal karyotype; no clonal abnormalities were detected at the stated band level of resolution.**

**Completed by:** Dawn Davis, CG(ASCP)
**Reviewed and Interpreted by:** Vanessa Horner, PhD, FACMG

**Date:**_____ **Sent By:**____ **Sent To:**_____ **QC Review By:** ____

*Limitations: This assay allows for microscopic visualization of numerical and structural chromosome abnormalities. The size of structural abnormality that can be detected is >3-10Mb, dependent upon the G-band resolution obtained from this specimen. For the purposes of this report, band level is defined as the number of G-bands per haploid genome. It is documented here as "band level", i.e., the range of bands determined from the four karyograms in this assay. Detection of heterogeneity of clonal cell populations in this specimen (i.e.,mosaicism) is limited by the number of metaphase cells examined, documented here as "# of cells counted".*

# Short Tandem Repeat

Requestor: WiCell Stem Cell Bank, WiCell
Samples Received: 18Jun21, 20Jun21, 22Jun21
STR Amplification Date: 23Jun21

Form SOP-89.01
Version 5.0

| Sample Name | PENN114i-127-2-DB34717 p15 | UCSD030i-23-2-WB67661 | STAN030i-46-1-WB67662 p18 |
|---|---|---|---|
| Label on tube | 86766 | 86775 | 86782 |
| FGA | [redacted] | | |
| TPOX | | | |
| D8S1179 | | | |
| vWA | | | |
| Amelogenin | | | |
| Penta_D | | | |
| CSF1PO | | | |
| D16S539 | | | |
| D7S820 | | | |
| D13S317 | | | |
| D5S818 | | | |
| Penta_E | | | |
| D18S51 | | | |
| D21S11 | | | |
| TH01 | | | |
| D3S1358 | | | |
| Allelic Polymorphisms | 28 | 26 | 30 |
| Matches* | | 71011, 86551 | 74378 |
| Comments | | DNA came from cryopreserved sample, no passage number given. | |

Identifying information has been redacted to protect donor confidentiality. If more information is required, please contact info@wicell.org

# Short Tandem Repeat

Requestor: WiCell Stem Cell Bank, WiCell
Samples Received: 18Jun21, 20Jun21, 22Jun21
STR Amplification Date: 23Jun21

Form SOP-89.01
Version 5.0

**Note: The STR profile of the following sample is an exact match for the given sample/samples.*

**Assay Description:** STR analysis is performed using the PowerPlex 16 HS System by Promega™. Results are reported as 13 CODIS STR markers, Amelogenin for gender determination and two low-stutter, highly discriminating pentanucleotide STR markers.

**Results:** The genotypic profiles comprise a range of __26-30___ allelic polymorphisms across the 15 STR loci analyzed.

**Interpretation:** The concentration of DNA required to achieve an acceptable STR genotype (signal/ noise) was equivalent to that required for the standard procedure (~1 ng/amplification reaction) from human genomic DNA. These results suggests that the cells submitted correspond to the cell lines as named and were not contaminated with any other human cells or a significant amount of mouse feeder layer cells.

**Sensitivity:** Sensitivity limits for detection of STR polymorphisms unique to either this or other human cell lines is ~2-5%.

| | | |
|---|---|---|
| 7/8/2021<br>X Molly Miles<br>Tech #1<br>Characterization<br>Signed by: Miles, Molly | 7/8/2021<br>X Callum Walker<br>Tech #2<br>Characterization<br>Signed by: Walker, Callum | 7/8/2021<br>X Dawn Graham<br>QA Review<br>Quality Assurance<br>Signed by: Graham, Dawn |



*Raw data is available upon request.*

# Mycoplasma Assay Report

PCR-based assay performed by WiCell

WiCell

25May21

FORM SOP-83.01
Version 3.0

| Sample Name | Result | Interpretation |
|---|---|---|
| INC149 17May21MMM 1 of 2 (86273) | Negative | Band was not seen at 270bp, indicating the absence of mycoplasma. |
| INC149 17May21MMM 2 of 2 (86274) | Negative | Band was not seen at 270bp, indicating the absence of mycoplasma. |
| INC123 17May21KR 1 of 2 (86275) | Negative | Band was not seen at 270bp, indicating the absence of mycoplasma. |
| INC123 17May21KR 2 of 2 (86276) | Negative | Band was not seen at 270bp, indicating the absence of mycoplasma. |
| PENN114i-127-2-DB34717 p14 (86309) | Negative | Band was not seen at 270bp, indicating the absence of mycoplasma. |
| PENN122i-627-5-DB36632 p14 (86310) | Negative | Band was not seen at 270bp, indicating the absence of mycoplasma. |
| PENN132i-131-5-DB35044 p15 (86311) | Negative | Band was not seen at 270bp, indicating the absence of mycoplasma. |
| Positive (+) Control | Positive | |
| Negative (-) Control | Negative | |

5/26/2021

X Callum Walker

Tech #1
Characterization
Signed by: Walker, Callum

5/27/2021

X Hannah Rueth

Tech #2
Characterization
Signed by: Rueth, Hannah

6/1/2021

X Haley Bruner

QA Review
Quality Assurance
Signed by: Bruner, Haley



*A gel image is available upon request.*

# Native Product Sterility Report

STERIS

WiCell
504 S Rosa Road, Rm 101
Madison, WI 53719

SAMPLE #: 21050267
DATE RECEIVED: 06-May-21
TEST INITIATED: 12-May-21
TEST COMPLETED: 26-May-21

SAMPLE NAME / DESCRIPTION:
CHB-4-WB67645
WIZ02e-H9CAGhM4Di-WB67644
PENN111i-222-5-DB36511
PENN121i-69-1-DB34956
PENN023i-82-1-DB35098
PENN114i-127-2-DB34717
PENN132i-131-5-DB35044
SCRP5003i-DB42961
SCRP5508i-DB42969
SCRP5603i-DB42976

UNIQUE IDENTIFIER: N/A

TEST RESULTS:

| # Tested | # Positives (Growth) | - Control |
|---|---|---|
| 10 | 0 | 2 Negatives |

TEST SUMMARY:

| # Samples | Media Type | Volume (mL) | Incubation Temperature (° C) | Incubation Duration (Days) |
|---|---|---|---|---|
| 10 | TSB | 40 | 20-25 | 14 |
| 10 | FTG | 40 | 30-35 | 14 |

REFERENCE: Processed according to LAB-003: Sterility Test Procedure
PD #: 000053
TEST METHODOLOGY: USP - Direct Transfer

COMMENTS: NA

REVIEWED BY Amie Burckhard DATE 26may2021